

[FIG.1]

100 CENTER STATION
110 HEAD OFFICE WIRELESS LAN NETWORK SYSTEM
120 BRANCH OFFICE WIRELESS LAN NETWORK SYSTEM
5 130 PUBLIC WIRELESS LAN NETWORK SYSTEM

[FIG.2]

116 RADIO TERMINAL APPARATUS
114 ACCESS POINT SECTION
10 111 GATEWAY APPARATUS
101 CENTER STATION GATEWAY APPARATUS
102 AUTHENTICATION SERVER
802.11 ASSOCIATION
CONNECTION CHECK (NOT CONNECTED)
15 EAP SEQUENCE
WEP KEY NOTIFICATION
WEP KEY NOTIFICATION
WEP KEY GENERATION
WEP KEY SAVING
20

[FIG.3]

114 ACCESS POINT SECTION
301 DATA TRANSMISSION/RECEPTION SECTION
302 SWITCHING SECTION
25 305 USER ACCESS CONTROL SECTION
306 WEP KEY CONTROL SECTION
303 SWITCHING SECTION
304 DATA TRANSMISSION/RECEPTION SECTION

101 CENTER STATION GATEWAY APPARATUS

[FIG.4]

116 RADIO TERMINAL APPARATUS
5 124 ACCESS POINT SECTION
121 GATEWAY APPARATUS
101 CENTER STATION GATEWAY APPARATUS
102 AUTHENTICATION SERVER
802.11 ASSOCIATION
10 CONNECTION CHECK (NOT CONNECTED)
SAVED WEP KEY NOTIFICATION

[FIG.5]

124 ACCESS POINT SECTION
15 301 DATA TRANSMISSION/RECEPTION SECTION
302 SWITCHING SECTION
501 USER ACCESS CONTROL SECTION
502 ACCESS TIME CONTROL SECTION
503 COMMUNICATION PACKET AMOUNT CONTROL SECTION
20 306 WEP KEY CONTROL SECTION
303 SWITCHING SECTION
304 DATA TRANSMISSION/RECEPTION SECTION
101 CENTER STATION GATEWAY APPARATUS

25 [FIG.6]

116 RADIO TERMINAL APPARATUS
124 ACCESS POINT SECTION
500 GATEWAY APPARATUS

101 CENTER STATION GATEWAY APPARATUS
102 AUTHENTICATION SERVER
INITIAL AUTHENTICATION
CONNECTION TIME, PACKET AMOUNT COUNTER START
5 COMMUNICATION (WEP ENCRYPTED BETWEEN MOBILE TERMINAL AND
AP)
COUNTER OVER
REQUEST FOR STARTING PROCEDURE FOR REAUTHENTICATION, WEP
KEY REDISTRIBUTION
10 CONNECTION CHECK (REAUTHENTICATION STATE)
EAP SEQUENCE
WEP KEY NOTIFICATION
WEP KEY NOTIFICATION
WEP KEY GENERATION
15 SAVE NEW WEP KEY
CONNECTION TIME, PACKET AMOUNT COUNTER START
COMMUNICATION (NEW WEP ENCRYPTED BETWEEN MOBILE TERMINAL
AND AP)

20 [FIG. 7]
ACCESS POINT SECTION
701 WIRELESS LAN I/F
EAP AUTHENTICATION
USER ID
25 703 EAP CLIENT
WEP ENCRYPTION
704 WEP CLIENT

[FIG. 8]

CELLULAR RADIO BASE STATION
ACCESS POINT SECTION
801 CELLULAR RADIO I/F
5 CELLULAR AUTHENTICATION
CELLULAR ENCRYPTION
802 CELLULAR AUTHENTICATION CLIENT
USER ID
USER ID
10 701 WIRELESS LAN I/F
EAP AUTHENTICATION
703 EAP CLIENT
WEP ENCRYPTION
704 WEP CLIENT